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| APPLICATION NO.   | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|---|---------------|----------------------|-------------------------|------------------|--|
| 09/719,566  | 03/06/2001    | Darrel Rowledge      | X-9330                  | 3859             |  |
| 75  | 90 04/01/2003 |                      |                         |                  |  |
| John S Hale<br>Gipple & Hale<br>6665 A Old Dominion Drive |               |                      | EXAMINER                |                  |  |
|   |               |                      | POLK, SHARON A          |                  |  |
| McLean, VA 22101  |               |                      | ART UNIT                | PAPER NUMBER     |  |
|   |               |                      | 2836                    |                  |  |
|   |               |                      | DATE MAILED: 04/01/2003 |                  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

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| , , , , ,   |  | A 1: 4: -            | m Nie                   | Applicant(a)       |  |  |
|---|--|----------------------|-------------------------|--------------------|--|--|
| ,   |  | Applicatio           | n No.                   | Applicant(s)       |  |  |
| Office Action Summary   |  | 09/719,56            | 6                       | ROWLEDGE, DARREL   |  |  |
|   |  | Examin r             |                         | Art Unit           |  |  |
|   |  | Sharon Po            |                         | 2836               |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |  |                      |                         |                    |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status |  |                      |                         |                    |  |  |
| 1)⊠ Res   | consive to communication(s) filed on $\underline{s}$                               | <u>30 December 2</u> | <u> 2002</u> .          |                    |  |  |
| 2a)⊠ This   | action is <b>FINAL</b> . 2b)   | This action is       | non-final.              |                    |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |  |                      |                         |                    |  |  |
| Disposition of Claims   |  |                      |                         |                    |  |  |
| ,—  | 4) Claim(s) 1-7 and 12-31 is/are pending in the application.                       |                      |                         |                    |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |  |                      |                         |                    |  |  |
| 5) Claim(s) is/are allowed.   |  |                      |                         |                    |  |  |
|   | n(s) <u>1-7 and 12-31</u> is/are rejected.   |                      |                         |                    |  |  |
|   | n(s) is/are objected to.<br>n(s) are subject to restriction an                     | d/or election re     | auirement               |                    |  |  |
| 8)  |  | u/or election re     | equirement.             |                    |  |  |
|   | ·<br>pecification is objected to by the Exam                                       | iner.                |                         |                    |  |  |
| ,   | rawing(s) filed on is/are: a)□ a   |                      | objected to by the Exar | miner.             |  |  |
| Арр   | licant may not request that any objection to                                       | the drawing(s)       | be held in abeyance. Se | ee 37 CFR 1.85(a). |  |  |
| 11)⊠ The proposed drawing correction filed on <u>30 December 2002</u> is: a)⊠ approved b)□ disapproved by the Examiner  |  |                      |                         |                    |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |  |                      |                         |                    |  |  |
| 12) The oath or declaration is objected to by the Examiner.   |  |                      |                         |                    |  |  |
| Priority under  | 35 U.S.C. §§ 119 and 120   |                      |                         |                    |  |  |
| 13)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  |  |                      |                         |                    |  |  |
| a)⊠ All   | b)☐ Some * c)☐ None of:  |                      |                         |                    |  |  |
| 1.⊠   | 1. Certified copies of the priority documents have been received.                  |                      |                         |                    |  |  |
| 2.  | 2. Certified copies of the priority documents have been received in Application No |                      |                         |                    |  |  |
| <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |  |                      |                         |                    |  |  |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  |  |                      |                         |                    |  |  |
| a) The translation of the foreign language provisional application has been received.   |  |                      |                         |                    |  |  |
| 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)   |  |                      |                         |                    |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s)   |  |                      |                         |                    |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.  6) Other:  |  |                      |                         |                    |  |  |

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### **DETAILED ACTION**

### Response to Arguments

1. Applicant's arguments, with respect to the drawing objections, and the objections to the specification have been fully considered and are persuasive. The objections to the drawings and specification have been withdrawn.

Applicant's arguments with respect to the claim objections have been fully considered but they are not persuasive. PCT applications and US applications are separate entities. The amendment to the PCT does not correlate to an amendment to the US application, unless properly filed as such. The amendment in response to the written opinion was not filed with the US application. Therefore, Applicant must properly amend the claims. The preliminary amendment that is on file with the pending US application does not correct all of the dependency problems. It instructs the office to delete things that are not there. For example, at Claim 7, line, 1 change "claims" to – claim- and delete ", 2, 3, 4, 5, or 6". Claim 7 as it was originally filed, and still remains is "7. A cooperative advance warning system according to claims 3, 4, 5, or 6, . . .". If the preliminary amendment is entered, claim 7 would not depend from any claim because it never depended from claims 1 or 2.

Additionally, Applicant added new claims 18-27. However they have been renumbered to claims 22-31, because claims 1-21, were already pending. The examiner notes cancellation of claims 8-11 without prejudice, and amendment to claim 1. However, by canceling claim 10, claims 12-15, have no dependency which depended directly or indirectly from claim 10.

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Applicant's arguments, with respect to 35 USC § 112, 2<sup>nd</sup> paragraph have been fully considered and are persuasive. As such, the rejection has been withdrawn. The examiner would like to thank Applicant for carefully taking the time to explain the intended meanings of cooperative, proportional, frequency, and high frequency. It is greatly appreciated.

Applicant's arguments, with respect to 35 USC § 112, 6th paragraph (relating to claims 16-18, 20, and 21) have been fully considered and are not persuasive. As previously indicated, the application does not show any amendment (via International Preliminary Examination under PCT) that deletes the "means" clause. Therefore, the rejection is maintained and not moot.

Applicant's arguments with respect to claims 1-7, 12-21 have been considered but are moot in view of the new ground(s) of rejection. The examiner agrees with Applicant, that "[i]n the result, similar information might be conveyed by applicant's invention and the device of Reppas et al., that is, the distance to the obstacle or hazard (15:20-21). However, the examiner disagrees that Adell as modified by Reppas et al. does not yield the claimed invention. In particular since applicant's invention, as understood, is operated by the user of the vehicle, the user turns on the lamp when a hazard is detected, such that the lamp will flash rapidly. Similarly, Reppas et al. device turns on a lamp when a hazard is detected. According the teaching of Reppas et al., a close object will cause the lights to flash rapidly (7:7-9), and for father objects the light would flash less rapidly (7:9-10). An inherent teaching of Reppas et al. is that if the light is on longer, the flashes will decrease because the hazard is further away. Moreover, it

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follows that if the light is just turned on, it will flash rapidly, because of the impending hazard. Therefore, Adell as modified by Reppas et al. teach the claimed invention.

### Claim Objections

2. Claim 23 is objected to because of the following informalities: there is a lack of antecedent basis regarding said lamps. Appropriate correction is required.

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adell, US 5,237,306 in view of Reppas et al., US 5.598.164.

With regard to **claim 1**, Adell teaches:

An advance warning system for use on a vehicle (40) to warn drivers of oncoming vehicles of an upcoming, unexpected road hazard comprising:

a lamp (48) mounted on the vehicle in a location where light emitted by the lamp is visible to drivers of the oncoming vehicles (col. 5, lines 8-10);

a switch means (61) connected to the lamp for activating and deactivating the lamp (col. 6, lines 6-8, col. 6, lines 43-44), the switch means mounted to the vehicle in a location that is easily accessible to the driver of the vehicle (fig. 27). It is noted that the

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examiner finds that Applicant's switch means performs the same function as Adell's control circuit; and

an electronic control means (72, e.g., 6: 27-28, fig. 33) connected to the lamp for controlling the characteristics of the light emitted by the lamp. The examiner finds that Applicant's control means performs the same function as Adell's control circuit 72.

Adell does not expressly teach the lamp flashing on and off at a predetermined frequency, in variable proportion to the length of time the lamp has been activated. However, Reppas et al. teach the feature (e.g., 7:7-10). One would have been motivated to modify Adell with the teachings of Reppas et al. at the time of the invention because it would be advantageous if the detection scheme could modify the range or type of detection used to fit the conditions (2:4-6).

With regard to **claim 2**, Adell teaches the electronic control means comprises means to automatically deactivate the lamp after a pre-determined period of time following activation (col. 6, lines 34-39).

With regard to **claim 3**, Adell teaches the electronic control means comprises means to cause the lamp to flash on and off at a pre-determined frequency (col. 6, lines 46-60).

With regard to **claims 4 and 5**, Adell teaches the claimed invention except for explicit teaching of the pre-determined frequency varies depending on the length of time the lamp has been activated, and the pre-determined frequency is inversely proportional to the length of time the lamp has been activated.

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However, Reppas et al. teach the pre-determined frequency varies depending on the length of time the lamp has been activated, and the pre-determined frequency is inversely proportional to the length of time the lamp has been activated (col. 6, lines 54-67, and col. 7, lines1-12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Adell with the teachings of Reppas et al. for the purpose of providing variable warning depending upon the proximity of the adjacent object (col. 6, lines 55-57).

With regard to **claim 6**, Adell teaches the pre-determined frequency comprises a cadence. The examiner agrees with assertion found in International Preliminary Examination Report (PCT/CA99/00598), EPO –April 1997 sheet 2, paragraph 5: If the term cadence were interpreted as being "the measure or beat of sound or movement" then cadence is inherent in the teaching of flashing on and off as claimed in claim 1. Further figure 32, shows flashing signals which are depicted as being at equivalent in duration.

With regard to **claim 7**, Adell teaches the electronic control means further comprises means to maintain the pre-determined frequency or cadence at a particular value for an indefinite period (col. 9, lines 66-68).

With regard to **claim 19**, Adell teaches the rear-facing warning light remains flashing on and off only for a pre-determined period of time following activation of the advance warning system (col. 7, lines 19-22).

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Assuming claims 12-15, now depend from claim 1:

Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adell, in view of Reppas et al., and further in view of Udofot, US 5,005,004.

With regard to **claim 12**, Udofot teaches the claimed invention except for the predetermined frequency can be varied depending on the distance from the road hazard,.

Reppas et al. teach the pre-determined frequency can be varied depending on the distance from the road hazard (e.g., 6:54-67; 7:1-12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Adell as modified by Reppas et al. with the teachings of Udofot for the purpose of providing variable warning depending upon the proximity of the adjacent object (6:55-57).

With regard to **claim 13**, Udofot teaches the pre-determined frequency comprises a cadence (4:16-21).

With regard to **claims 14 and 15**, adding the limitations of an in-use indicator light connected to the switch means and to the electronic control means for indicating when the advance warning system is operating, and the color of light emitted by the lamp is selected from the group of colors consisting of fuchsia and pink. These features are taught by Adell (*e.g.*, 6:55-57; 7:66-68; 8:1-4).

New claims 22-26, 28-31, will not be addressed because they depend from claims that have dependency issues, or are rejected under 35 USC § 112, 6<sup>th</sup> paragraph. It is a burden to the examiner to attempt to discern proper dependencies, only to have the Applicant recite other dependencies.

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Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pass, US 4,065,104 in view of Reppas et al..

Pass teaches a method of warning drivers of vehicle of an upcoming, unexpected road hazard (e.g., 1:60-65) comprising;

selecting a plurality of locations, each said location being located a selected respective distance from the road hazard (2:27-33); The examiner notes that inherent in the teaching is selecting locations, by the use of plural sections of lights to be constructed to satisfy a particular set of conditions.

locating at each said a portable cooperative advance warning system (10) comprising a lamp (60) for emitting a light beam that is visible to the drivers of said vehicles; and

causing each of said lamps to flash on and off (e.g., 3:64-66).

Pass does not teach the lamp flashing at a respective frequency that is in proportion to said selected respective distance of said lamp from the road hazard. However this feature is taught by Reppas et al. (e.g., 7:7-10). A skilled artisan would have been motivated art at the time of the invention to modify Pass with the teachings of Reppas et al. for the purpose of providing variable warning depending upon the proximity of the adjacent object (6:55-57).

#### Pertinent Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Nos. 3,868,630, and 5,005,004 disclose portable warning systems.

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### Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### Communication with the PTO

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon Polk whose telephone number is 703-308-6257. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703-308-3119. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-305-7723 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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March 24, 2003

Sharon Polk

Patent Examiner – Art Unit 2836

BRIAN SIRCUS

SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800